

ABSTRACT OF THE DISCLOSURE

A process and apparatus are provided for converting methane to higher hydrocarbons, especially for converting economically stranded natural gas to a transportable liquid hydrocarbon product mainly comprised of C<sub>3</sub>+ hydrocarbons, comprising applying ultraviolet light to methane (or to the natural gas containing the methane) under conditions effective to cause its photodissociation and polymerization to C<sub>2</sub>+ and higher hydrocarbons.